



Kennedy Space Center
Center Operations Directorate

Medical & Environmental Management Division

Diverted Aggregate Reclamation and Collection Yard (DARCY)

Presented to:

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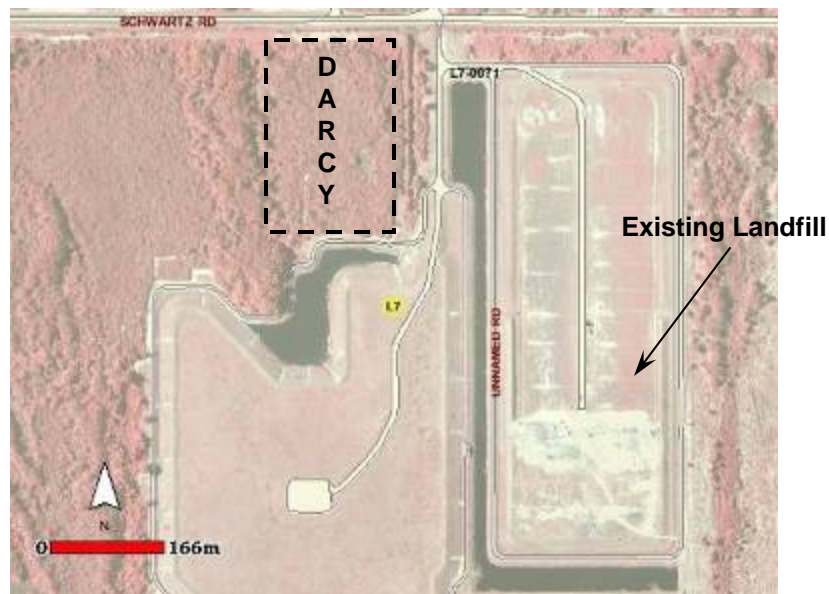
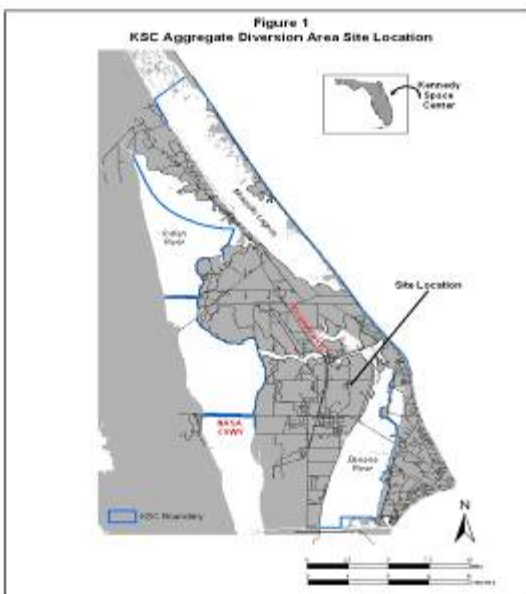
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What is DARCY?

♦ DARCY is:

- **D**iverted **A**ggregate **R**eclamation & **C**ollection **Y**ard
- Located northwest of the existing permitted Class III C&D landfill
- Provides a staging area for processing clean waste concrete from C&D projects.





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Aerial View of DARCY

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Why DARC?

- ◆ To meet Agency 35% Solid Waste Diversion Goal
 - KSC generates ~47% of NASA Agency S/W disposal annually
 - About 75% of KSC S/W disposal is waste concrete from C&D projects
- ◆ To extend KSC landfill lifespan & to make diversion easy
- ◆ Unable to process concrete at the “KSC Landfill Working Face”
- ◆ Large quantity of stockpile needed for feasible grinding



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Why Waste Concrete?

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- ◆ Concrete is the best candidate for diversion due to:
 - Weight (75% of C&D waste)
 - Ability to segregate
 - Reuse potential
 - “57 Limestone” replacement for road base and parking lot fill
 - Rip-Rap for shore line protection
 - Landfill cover
 - Pipe bedding
 - Other (i.e. slope stabilization, offsite uses)



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DARCY Processes

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8. Finished Parking Lot



1. Demolition Project



2. Stockpiling @DARCY



7. Upclose View of Product



3. Sorting @DARCY



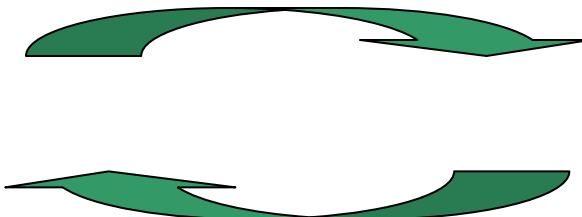
6. Reuse Crushed Concrete
at Coff Project



5. Crushed Concrete



4. Crushing @DARCY





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DARCY Success Stories

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KSC S/W Diversion Rate (Goal 35%)	Without DARCY	With DARCY
2002	~7.6%	---
2003	~9.5%	---
2004	~28.5%	~42%
2005	~31%	~51%
2006	~34.2%	~63%



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DARCY Success Stories (continued)

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- ◆ Currently diverted ~15,000 tons of waste concrete
- ◆ Crushed ~4,000 tons of waste concrete as demo project
- ◆ KSC Construction of Facilities (CofF):
 - Utility Shop Lift Station
 - Used ~950 tons as base for parking lot
 - Received **\$10,500** credit from the project contractor
 - Positive contractor feedback – preferred over limestone
 - Life Support Facility Project
 - Using ~1,500 tons as base for parking lot
 - Cost avoidance of **\$31,000**
 - Project has a potential to move from **LEED Certified (26-32 points)** to **LEED Silver Certified (33-38 points)** for New Construction



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What next for DARCY?

- ◆ Close/Demolish Permanent Facilities and Equipment Project – 15 buildings & structures to be demolished in 2007
- ◆ NASA Causeway Seaway Repair Project
 - Propose to use waste concrete as rip-rap (~25,000 to 60,000 tons needed)

